

Attorney Docket No. 1454.1638

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Franz AUERBACH et al.

Application No.:

Group Art Unit:

Filed: (Concurrently)

Examiner:

For: ELECTRICAL COMPONENT ON A SUBSTRATE AND METHOD FOR PRODUCTION  
THEREOF (as amended)

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 CFR § 1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the subject application.

1. Enclosures accompanying this Information Disclosure Statement are:

- 1a. ☒ Form PTO-1449.
- 1b. ☒ Copy(ies) of IDS citation(s), except for U.S. Patents and U.S. Patent Application publications.
- 1c. ☒ English language copy of a communication(s) from a foreign Patent Office or a PCT International Search Report.
- 1d. ☒ English language translation (complete, Abstract or relevant portion(s)) attached to non-English language publications as indicated on the attached Form PTO-1449.
- 1e. ☒ Explanations of Relevancy of References (ATTACHMENT 1(e), hereto) for providing a concise explanation of non-English publications.

2. ☒ In accordance with 37 CFR § 1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is

(Check appropriate Items 2a, 2b, 2c and/or 2d)

- 2a. ☒ satisfied for the non-English language publication(s) cited on the enclosed "English language version of the search report or action which indicates the degree of relevance found by the foreign office". (See MPEP § 609, Minimum Requirements for an Information Disclosure Statement, Part A(3): Concise Explanation of Relevance, 8th Ed., Rev. 2)
- 2b. ☐ set forth in the application.

- 2c. ☐ satisfied for the non-English language publication(s) indicated on the attached PTO-1449 as having an English language translation (complete, Abstract or relevant portion(s)) attached thereto.
- 2d. ☒ enclosed as Attachment 1(e), hereto.
3. No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than search report(s) from a counterpart foreign application or a PCT International Search Report, if submitted herewith). 37 CFR §§ 1.97(g) and (h).

Respectfully submitted,

STAAS & HALSEY LLP

Dated: 9/28/05  
1201 New York Ave., N.W., Suite 700  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501

By: Richard A. Gollhofer  
Richard A. Gollhofer  
Registration No. 31,106

10/551207

JG12 PCT/US/00115 28 SEP 2005

FORM PTO-1449  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  <b>INFORMATION DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>	ATTORNEY DOCKET NO. <b>1454.1638</b>	APPLICATION NO.
	FIRST NAMED INVENTOR <b>Franz AUERBACH</b>	
	FILING DATE <b>(Concurrently)</b>	GROUP ART UNIT

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA	3,978,578	09/07/1976	Murphy			
	AB	4,937,707	06/26/1990	McBride et al.			
	AC	5,027,192	05/26/1991	Kloucek			
	AD	5,452,182	09/19/1995	Eichelberger et al.			
	AE	5,616,886	04/01/1997	Romero et al.			
	AF	5,637,922	06/10/1997	Fillion et al.			
	AG	5,856,913	01/05/1999	Heilbronner			

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NO.	DATE	COUNTRY	TRANSLATION YES NO		ABSTRACT
	AH	2 382 101	09/22/1978	FRANCE			X
	AI	0 380 906	08/08/90	EUROPE			
	AJ	0 473 929 A1	03/11/1992	EUROPE			
	AK	196 17 055 C1	06/26/1997	GERMANY			
	AL	WO 95/06946	03/09/1995	WIPO			

**OTHER REFERENCES (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

			TRANSLATION YES NO	
	AM	Harmann, G., Wire Bonding in Microelectronics Materials, Processes, Reliability, and Yield, 2nd Edition, McGraw-Hill; 1998; pp. 1-41		
	AN	Temple, V.; "SPCO's ThinPak Package, an Ideal Building Block for Power Modules and Power Hybrids"; IMAPS 99 Conference, Chicago 1999; pp. 642-646.		

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY DOCKET NO. 1454.1638	APPLICATION NO. 10/551207
LIST OF REFERENCES CITED BY APPLICANT  (Use several sheets if necessary)		FIRST NAMED INVENTOR Franz AUERBACH	
		FILING DATE (Concurrently)	GROUP ART UNIT

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	BA						
	BB						
	BC						
	BD						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
	BE						
	BF						
	BG						

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	BH	S. HAQUE et al., "An Innovative Technique for Packaging Power Electronic Building Blocks Using Metal Posts Interconnected Parallel Plate Structures"; IEEE Transactions on Advanced Packaging, Vol. 22, No. 2, May 1999; pp. 136-144
	BI	X. LIU et al.; "Packaging of Integrated Power Electronics Modules Using Flip-Chip Technology"; Applied Power Electronics Conference and Exposition, APEC'2000; pp. 290-296.
	BJ	C. GILLOT et al.; "A New Packaging Technique for Power Multichip Modules"; IEEE Industry Applications Conference IAS 1999; pp. 1765-1769.
	BK	G.-Q. LU, "3-D, Bond-Wireless Interconnection of Power Devices in Modules Will Cut Resistance, Parasitic and Noise"; PCIM, May 2000; pp. 40, 46-48, 65, 66, 68.
	BL	H.-J. KROKOSZINSKI, "Foil-Clips for Power Module Interconnects"; Hybrid Circuits, Vol. 35, Sept. 1992; pp. 28-30.
	BM	"Improved Method for C-4 Chip Join"; IBM Technical Disclosure Bulletin, Vol. 31, No. 6, November 1998; pp. 335-336.

EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if reference considered. whether or not citation is in conformance with MPEP 609: Draw line through citation if	

JC12 Rec'd PCT/PTC 28 SEP 2005

ATTACHMENT 1(e)

<b>EXPLANATIONS OF RELEVANCY OF REFERENCES</b>	ATTORNEY DOCKET NO.	APPLICATION NO.
	1454.1638	10/551207
	FIRST NAMED INVENTOR	
	Franz AUERBACH	
	FILING DATE	GROUP ART UNIT
	(Concurrently)	

German Patent Application No. DE 196 17 055 (Reference AK) corresponds to U.S. Patent Application No. 5,856,913 (Reference AG)